NEB-138-CIP

PATENT

Preliminary Classification:

Proposed Class:

Subclass:

NOTE: "All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand comer of the letter of transmittal accompanying the application papers, for example 'Proposed Class 2, subclass 129.' " M.P.E.P. § 601, 7th ed.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box Patent Application Assistant Commissioner for Patents Washington, D.C. 20231

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s):

Yi TAN

Michael COMB

WARNING: 37 C.F.R. § 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors."

For (title):

PRODUCTION OF MOTIF-SPECIFIC AND CONTEXT-INDEPENDENT ANTIBODIES

USING PEPTIDE LIBRARIES AS ANTIGENS

CERTIFICATION UNDER 37 C.F.R. § 1.10*

(Express Mail label number is mandatory.) (Express Mail certification is optional.)

I hereby certify that this New Application Transmittal and the documents referred to as attached therein are being deposited with the United States Postal Service on this date as "Express Mail Post Office to Addressee," mailing Label Number EK249612255US dressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

> Melissa A. Jackson print name of nailing paper) ature of person mailing paper

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. § 1.8 cannot be

used to obtain a date of mailing or transmission for this correspondence.

*WARNING: Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. § 1.10(b).

"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

(New Application Transmittal [4-1]—page 1 of 11)

ű U M **#** Ξ

t.	Type	of	Application

This new application is for a(n)

(check one applicable item below)

Į.		Original (nonprovisional)
(Design
		☐ Plant
WARN	IING.	Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. § 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application.
WARN	IING.	: Do not use this transmittal for the filing of a provisional application.
NOTE	TF	one of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION RANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.
		Divisional.
		Continuation.
	ΙΧΊ	Continuation-in-part (C-I-P).

2. Benefit of Prior U.S. Application(s) (35 U.S.C. §§ 119(e), 120, or 121)

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. § 112. Each prior application must also be:

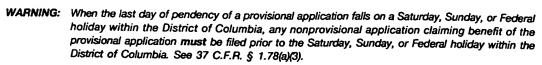
- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or
 - (ii) Complete as set forth in § 1.51(b); or
- (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
- (iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(f) within the time period set forth in § 1.53(f).

37 C.F.R. § 1.78(a)(1).

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. §§ 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. §§ 120, 121 or 365(c). (35 U.S.C. § 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. §§ 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

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The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

3. Pa	pers	Enclose	₽d
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A.	Required for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 C.F.R. § 1.153
	(Design) Application
- 5	1

- Pages of specification
- $\frac{6}{}$ Pages of claims
- $\frac{15}{2}$ Sheets of drawing

WARNING: DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments on proposed then-new 37 C.F.R. § 1.84, see Notice of March 9, 1988 (1990 O.G. 57-62).

NOTE: "Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page . . . " 37 C.F.R. § 1.84(c)).

(complete the following, if applicable)

	The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. § 1.84(b).
	formal
X	informal

- B. Other Papers Enclosed
- Pages of declaration and power of attorney
- Pages of abstract
- Other

Additional papers enclosed

Am	nendment to claims	
	Cancel in this applications claims be calculating the filing fee. (At least one original independent claim must retained for filing purposes.)	efore st be
	Add the claims shown on the attached amendment. (Claims added the been numbered consecutively following the highest numbered originals.)	nave gina

Preliminan	A

П	Information	Disclosure	Statement	(37	CER	2	1 091
-	"" " " " " " " " " " " " " " " " " " "	Disciosure	Clatellell	137	U.F.A.	0	1.901

- Form PTO-1449 (PTO/SB/08A and 08B)
- Citations

		laration of Biological Deposit
	pert amii	mission of "Sequence Listing," computer readable copy and/or amendment aining thereto for biotechnology invention containing nucleotide and/or no acid sequence.
	Auth tive	norization of Attorney(s) to Accept and Follow Instructions from Representa-
] Spe	cial Comments
] Oth	er
		n or oath (including power of attorney)
	the prior by all or applicate the sign by a state being frequency declarate person executes	rexecuted declaration is not required in a continuation or divisional application provided that it nonprovisional application contained a declaration as required, the application being filed is it fewer than all the inventors named in the prior application, there is no new matter in the tion being filed, and a copy of the executed declaration filed in the prior application (showing nature or an indication thereon that it was signed) is submitted. The copy must be accompanied interment requesting deletion of the names of person(s) who are not inventors of the application filed. If the declaration in the prior application was filed under § 1.47, then a copy of that the tion must be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning under § 1.47 has subsequently joined in a prior application, then a copy of the subsequently ad declaration must be filed. See 37 C.F.R. §§ 1.63(d)(1)–(3).
NOTE:	is direct abbrevi country	ration filed to complete an application must be executed, identify the specification to which it ted, identify each inventor by full name including family name and at least one given name, without ation together with any other given name or initial, and the residence, post office address and or citizenship of each inventor, and state whether the inventor is a sole or joint inventor. 37 § 1.63(a)(1)–(4).
NOTE:	as pres as pres is that it this par	ventorship of a nonprovisional application is that inventorship set forth in the oath or declaration cribed by § 1.62, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration cribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under ragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name es of the inventor or inventors." 37 C.F.R. § 1.41(a)(1).
Ę×	S End	closed : · ·
	Exe	ecuted by
		(check all applicable boxes)
	X	inventor(s).
		legal representative of inventor(s). 37 C.F.R. §§ 1.42 or 1.43.
		joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.
		☐ This is the petition required by 37 C.F.R. § 1.47 and the statement required by 37 C.F.R. § 1.47 is also attached. See item 13 below for fee.
] No	t Enclosed.
NOTE:	the U.S may be	the filing is a completion in the U.S. of an International Application or where the completion of S. application contains subject matter in addition to the International Application, the application at treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE SEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.
		Application is made by a person authorized under 37 C.F.R. § 1.41(c) on behalf of all the above named inventor(s).
		(New Application Transmittal [4-1]—page 4 of 11)

(The declaration or oath, along with the surcharge required by 37 C.F.R. § 1.16(e) can be filed subsequently).
Showing that the filing is authorized. (not required unless called into question. 37 C.F.R. § 1.41(d))
6. Inventorship Statement
WARNING: If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.
The inventorship for all the claims in this application are:
The same.
or
Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,
☐ is submitted.
☐ will be submitted.
7. Language
NOTE: An application including a signed oath or declaration may be filed in a language other than English. An English translation of the non-English language application and the processing fee of \$130.00 required by 37 C.F.R. § 1.17(k) is required to be filed with the application, or within such time as may be set by the Office. 37 C.F.R. § 1.52(d).
☑ English
☐ Non-English
☐ The attached translation includes a statement that the translation is accurate. 37 C.F.R. § 1.52(d).
8. Assignment
An assignment of the invention toNew England Biolabs, Inc.
is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☒ FORM PTO 1595 is also attached.
will follow.
NOTE: "If an assignment is submitted with a new application, send two separate letters-one for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).
WARNING: A newly executed "CERTIFICATE UNDER 37 C.F.R. § 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.

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9. Certif

Certified copy(ies) of application(s)

Country	Appln. No.	Filed
Country	Appln. No.	Filed
Country	Appln. No.	Filed
from which priority is claimed	d	
is (are) attached.		
□ will follow.		
NOTE: The foreign application for	orming the basis for the claim for priority mus 1.55(a) and 1.63.	it be referred to in the oath or

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. § 120 is itself entitled to priority from a prior foreign application, then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

10. Fee Calculation (37 C.F.R. § 1.16)

				CLAI	MS AS FI	LED		
Number filed	Number Extra					Rate	Basic Fee 37 C.F.R. § 1.16(a) \$690.00	
Total Claims (37 C.F.R. § 1.16(c))	29		20	=	9	×	\$ 18.00	162.00
Independent Claims (37 C.F.R. § 1.16(b))	12	_	3	=	9	×	\$ 78.00	702.00
Multiple depender if any (37 C.F.R.						+	\$260.00	260.00

	Amendment -	cancelling	extra	claims	is	enclosed	١.
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- ☐ Amendment deleting multiple-dependencies is enclosed.
- ☐ Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 C.F.R. § 1.16(d).

Filing Fee Calculation

1814.00

B. Design application

(\$310.00—37 C.F.R. § 1.16(f))

Filing Fee Calculation

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c . \Box	Plant application	
	(\$480.00—37 C.F.R. § 1.16(g))	
	Filing fee calculation \$	
11. Sm	nall Entity Statement(s)	
X	Statement(s) that this is a filing by a small entity under 37 C.F.R. § 1.9 and 1 is (are) attached.	.27
WARNIN	**Status as a small entity must be specifically established in each application or patent in with the status is available and desired. Status as a small entity in one application or patent does affect any other application or patent, including applications or patents which are directly indirectly dependent upon the application or patent in which the status has been established. refiling of an application under § 1.53 as a continuation, division, or continuation-in-part (include a continued prosecution application under § 1.53(d)), or the filing of a reissue application required a new determination as to continued entitlement to small entity status for the continuing or reis application. A nonprovisional application claiming benefit under 35 U.S.C. § 119(e), 120, 121, 365(c) of a prior application, or a reissue application may rely on a statement filed in the propaphication or in the patent if the nonprovisional application or the reissue application includes reference to the statement in the prior application or in the patent or includes a copy of statement in the prior application or in the patent and status as a small entity is still proper desired. The payment of the small entity basic statutory filing fee will be treated as such a reference for purposes of this section." 37 C.F.R. § 1.28(a)(2).	not y or The ding iires sue , or orior es a the
WARNING		ent July
	(complete the following, if applicable)	
	Status as a small entity was claimed in prior application	
	, filed on, from which bene	əfit
	is being claimed for this application under:	3111
	35 U.S.C. § 🔲 119(e),	
	□ 120,	
	☐ 121, · · · · · · · · · · · · · · · · · · ·	
	□ 365(c),	
	and which status as a small entity is still proper and desired.	
	A copy of the statement in the prior application is included.	
	Filing Fee Calculation (50% of A, B or C above)	
	\$ 907:00	
ar	Any excess of the full fee paid will be refunded if small entitiy status is established and a refund requence filed within 2 months of the date of timely payment of a full fee. The two-month period is nextendable under § 1.136. 37 C.F.R. § 1.28(a).	est 10t
2. Requ	uest for International-Type Search (37 C.F.R. § 1.104(d))	
	(complete, if applicable)	
	Please prepare an international-type search report for this application at the time when national examination on the merits takes place.	16

5. F	ee	Payn	Jett Deing Made at This Time		
		Not	Enclosed		
			No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. § subsequently.)	1.16(e)	can be paid
	X	Enc	losed		
		X	Filing fee	\$.	907.00
		X)	Recording assignment (\$40.00; 37 C.F.R. § 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION".)	\$.	947.00
			Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached (\$130.00; 37 C.F.R. §§ 1.47 and 1.17(i))	\$.	
			For processing an application with a specification in a non-English language (\$130.00; 37 C.F.R. §§ 1.52(d) and 1.17(k))	\$.	
			Processing and retention fee (\$130.00; 37 C.F.R. §§ 1.53(d) and 1.21(l))	\$	
			Fee for international-type search report (\$40.00; 37 C.F.R. § 1.21(e))	\$	
NOTE	fa 3 e	ailing t 7 C.F. ither t	R. § 1.21(I) establishes a fee for processing and retaining any applic to complete the application pursuant to 37 C.F.R. § 1.53(f) and this R. §§ 1.53 and 1.78(a)(1), indicate that in order to obtain the benefi- the basic filing fee must be paid, or the processing and retention fell by year from notification under § 53(f).	s, as well a it of a prior se of § 1.2	s the changes to U.S. application 1(I) must be paid
			Total fees enclosed	\$ 947	•00
4. I	Met		of Payment of Fees		
	X	Che	eck in the amount of \$ 947.00		
		\$	arge Account Nouplicate of this transmittal is attached.	in the	amount o
NOT			could be itemized in such a manner that it is clear for which purpose	the fees a	re paid. 37 C.F.F

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15. Authorization to Charge Additional Fees

WARNING: If no fees are to be paid on filing, the following items should not be completed.

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

- The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 14-0740

 - 37 C.F.R. § 1.16(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

- 37 C.F.R. § 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)
- ☑ 37 C.F.R. § 1.17(a)(1)–(5) (extension fees pursuant to § 1.136(a)).
- 37 C.F.R. § 1.17 (application processing fees)

NOTE: ". . . A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).

- ☐ 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))
- NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 C.F.R. § 1.311(b).
- NOTE: 37 C.F.R. § 1.28(b) requires "Notification of any change in status resulting in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying, . . . the issue fee. . . " From the wording of 37 C.F.R. § 1.28(b), (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

(New Application Transmittal [4-1]—page 9 of 11)



NOTE: ". . . Amounts of twenty-five dollars or less will not be returned unless specifically requested within a reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may be returned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).

☑ Credit Account No. 14-0740

☐ Refund

Reg. No. 30901

Tel. No. (978) 927-5054 X:292

Customer No.

SIGNATURE OF PRACTITIONER Gregory D. Williams

General Counsel

(type or print name of attorney)

New England Biolabs, Inc.

32 Tozer Road

P.O. Address

Beverly, MA 01915

(New Application Transmittal [4-1]-page 10 of 11)





(check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED)

Ž	Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed
	Number of pages added
	Plus Added Pages for Papers Referred to in Item 4 Above
	Number of pages added
	Plus added pages deleting names of inventor(s) named in prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application.
	Number of pages added
	Plus "Assignment Cover Letter Accompanying New Application"
	Number of pages added
State	ment Where No Further Pages Added
•	no further pages form a part of this Transmittal, then end this Transmittal with is page and check the following item)
	This transmittal ends with this page.